M5 Diagnostic Ultrasound System

Operation Note

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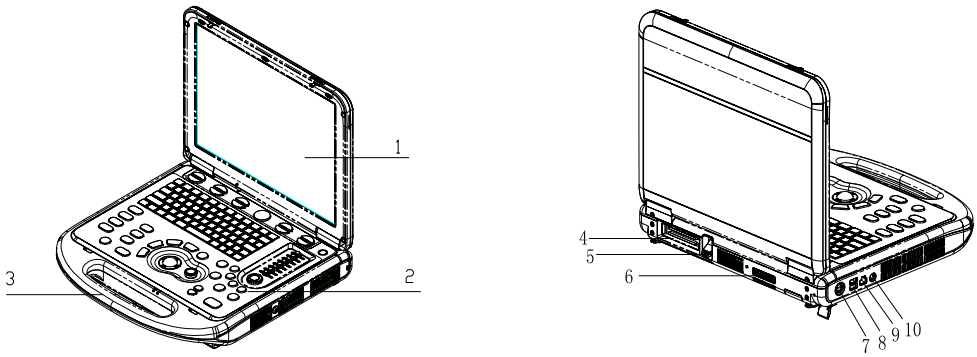
System Introduction



No	Name	Function
1	Monitor	Displays the images and parameters during scanning
2	Control panel	Operator-system interface or control
3	Handle	Used for carrying the system
4	Transducer Port	Connects a transducer to the main unit; or connects a probe extend module
5	Transducer locking lever	Locks or unlocks the transducer connected with the main unit
6	IO extend port	Connects the IO extend module
7	Power input port	Connects the power adapter
8	USB port	Connects USB devices
9	Network port	Connects the network
10	S-Video separate video output	Connects VCR recorder or video printer

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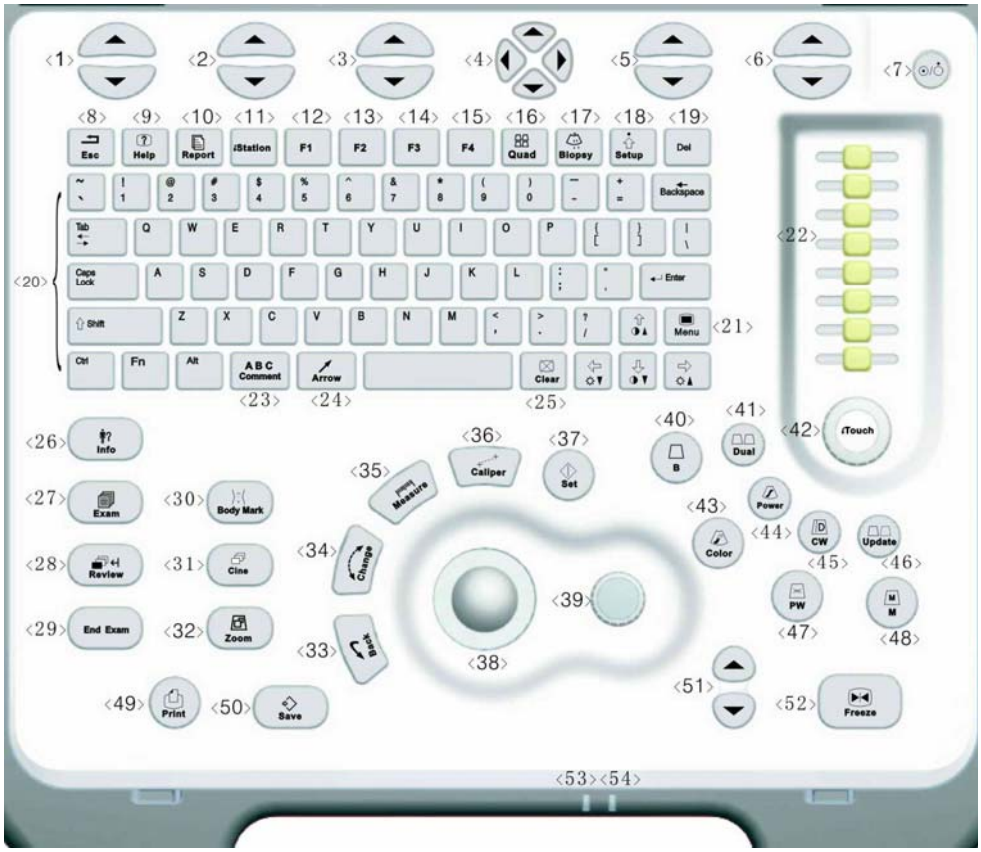
Control Panel



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Control Panel

No	English Name	Name Description	Function
1	/	soft menu controls 1	Press to select the soft menu items displayed on the bottom of the screen. Refer to the Operator's Manual [Basic Volume] for specific functions.
2	/	soft menu controls 2	Press to select the soft menu items displayed on the bottom of the screen. Refer to the Operator's Manual [Basic Volume] for specific functions.
3	/	soft menu controls 3	Press to select the soft menu items displayed on the bottom of the screen. Refer to the Operator's Manual [Basic Volume] for specific functions.
4	/	soft menu controls 4	Up/down controls are used to turn pages up/down when there are more-than-one pages for the soft menu; Left/right controls are used to switch between the exam types.
5	/	soft menu controls 5	Press to select the soft menu items displayed on the bottom of the screen. Refer to the Operator's Manual [Basic Volume] for specific functions.
6	/	soft menu controls 6	Press to select the soft menu items displayed on the bottom of the screen. Refer to the Operator's Manual [Basic Volume] for specific functions.
7	/	Power button	When you press the power button to turn on the system, the system enters the work status and the indicator lights on and becomes green. When the system enters the standby status, the indicator turns yellow. When you press the power button to turn off the system, the indicator lights off.

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Control Panel

No	English Name	Name Description	Function
8	Esc	Escape	Press to exit the current status to the previous status.
9	Help	Help	Press to open or close the accompanying help documents.
10	Report	Report	Press to open or close the diagnosis reports.
11	iStation	/	Press to enter or exit the patient information management system.
12	F1	User-defined key	You can assign a function to the key.
13	F2	User-defined key	You can assign a function to the key.
14	F3	User-defined key	You can assign a function to the key.
15	F4	User-defined key	You can assign a function to the key.
16	Quad	4-split screen display	Press to enter or exit the 4-split screen display.
17	Biopsy	Biopsy	Press to show or hide the biopsy guide line.
18	Setup	Setup	Press to show or hide the Setup menu.
19	Del	Delete	Press to delete the comment.
20	/	Alphanumeric keys	Same as those of PC.
21	Menu	Menu	Press to display or hide a mode-specific parameter menu.
22	TGC	Time Gain Compensation	Move to adjust time gain compensation.
23	Comment	Comment	Press to enter or exit the character comment status.
24	Arrow	Arrow	Press to enter or exit the arrow comment status.
25	Clear	Clear	Press to clear the comments or measurement calipers on the screen.
26	Info	Patient information	Press to enter the [Patient Info] screen.
27	Exam	Exam type	Press to switch between exam types.
28	Review	Review	Press to review the image files stored.

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Control Panel

No	English Name	Name Description	Function
29	End Exam	End exam	Press to end an exam.
30	Body Mark	Body mark	Press to enter or exit the Body Mark status.
31	Cine	Cine review	Press to enter or exit the Cine Review status.
32	Zoom	Zoom	Press to enter or exit the Zoom status.
33	Back	Return or delete	Press to return to the previous operation or delete the previous item.
34	Change	Change	Press to toggle between calipers within the same measurement.
35	Measure	Measure	Press to enter or exit the application measurement mode.
36	Caliper	Caliper	Press to enter or exit the general measurement mode.
37	Set	Set	Press to confirm an operation, same as the left-button of the mouse.
38	/	Trackball	Roll the trackball to move the cursor position.
39	/	Multifunction knob	Rotate to adjust image parameters or comment arrows. Or when the cursor is hidden, press to show the cursor.
40	B	/	Press to enter the B mode
41	Dual	/	Press to enter the Dual mode from another mode; Press to switch between the two display windows in the Dual mode.
42	iTouch	/	Rotate to increase or decrease the image gain; press to optimize the image serving as a one-key optimization.
43	Color	/	Press to enter the Color mode.
44	Power	/	Press to enter the Power mode.
45	CW	/	Press to enter the CW mode.

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Control Panel

No	English Name	Name Description	Function
46	Update	/	● Press to change the currently active window in B+M or PW mode. ● Press to start or end image capture In Smart3D or iScape mode.
47	PW	/	Press to enter the PW mode.
48	M	/	Press to enter the M mode.
49	Print	Print	Press to print; user-defined key.
50	Save	Save	Press to save; user-defined key.
51	Depth	Depth	Press to increase or decrease the imaging depth.
52	Freeze	Freeze	Press to freeze or unfreeze onscreen image.
53	/	Indicator 1	Indicates if the main unit is connected to the power supply. When the main unit is not connected to the power supply, the indicator light is off. When the main unit is connected to the power supply, the indicator light is on and in green color.
54	/	Indicator 2	Indicates the current status of the batteries. When the system is supplied with power by the batteries and the power capacity is lower than 30%, the indicator is yellow and flashes. When the batteries are being charged, the indicator light is on and in yellow color. When the battery capacity is charged to the full capacity, the indicator color changes from yellow to green. In other statuses, the indicator light is off.

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Control Panel

There are five keys which can work with the Fn key:

Key Name	Function
[Fn] +	Press the two keys to increase the brightness of the LCD display.
[Fn] +	Press the two keys to decrease the brightness of the LCD display.
[Fn] + [S]	Press the two keys to mute the speaker.
[Fn] +	Press the two keys to increase display contrast.
[Fn] +	Press the two keys to decrease display contrast.

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Power ON / OFF the System

⚠CAUTION:

To ensure the safe and effective operation of the system, you need to perform daily maintenance and checks. See the section 6.1 in the Operator's Manual [Basic Volume] for the checklist.

⚠CAUTION:

If the system begins to function improperly – immediately stop scanning. If the system continues to function improperly –shut down the system and contact Mindray Customer Service Department or sales representative. If you use the system in a persistent improper functioning state – you may harm the patient or damage the equipment.

Power ON

1. Connect the system to the power supply through the power adapter; or use the batteries with sufficient capacity.
2. Press the power button to turn on the system and the power indicator is on in green color. The power button is on the upper right corner of the system.

Power OFF

- To power off the system normally:

Gently press the power button once on the upper right corner of the control panel. The [Shutdown Confirm] screen appears. See the figure below.

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Power ON / OFF the System

: To power off the system, click it. (It is recommended to select this button after the system software is upgraded.)

: To restart quickly, click it to power off the system quickly and then press the power button to restart quickly.

: To cancel the shutdown operation, click it to cancel the shutdown operation and let the system return to the previous status.

- If you will not use the system for a long period of time, you shall:

1 Disconnect the power adapter;

2 Disconnect the mains power;

3 Turn off powers of all peripherals connected to the system.

- To shut down the system in a direct way if you cannot do it normally:

1 Only when you cannot shut down the system normally, you can directly shut it down. Press and hold the power button for a long time and the system will power off without displaying the [Shutdown Confirm] screen.

2 Shutting down the system this way may destroy the data.

NOTE: DO NOT rush shutdown of the system in a direct way. It may destroy the data.

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System Status Icons

Icons	Information
or	Region of Interest (RoI) size or position
	Pulsed Wave Sample Volume size or position
	Cine Review status
	Measurement status
	Comment status
	Body Mark (Pictogram) status
	Zoom status
	USB device connected
or	Character input method indicator (English or Chinese)
	X-axis rotation in 3D imaging mode
	Y-axis rotation in 3D imaging mode
	Z-axis rotation in 3D imaging mode
	Sphere-center rotation in 3D imaging mode
	3D cutting status

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Enter or Search Patient Information

To enter patient information,

1 Press **End Exam** to end the current patient scan and start a new patient exam.

2 Press **Info** to enter the patient information input dialog box.

3 Select an exam type.

4 Enter patient information.

5 Click **OK** to save the entered information and exit the dialog box. Click **Cancel** to cancel the entered information and exit the dialog box.

To search for patient information,

1 To enter the patient file management screen,

1) Press **iStation** key directly; or

2) Click **iStation** button in the patient information dialog box; or

3) Click **iStation** button in the [Review] screen.

2 At the Data Source, select from the available file locations for patient information or record information.

3 Set the patient conditions in the searching field.

4 Click **Search** to search the patients.

5 When a patient is selected, you can view images and reports in the file list field.

6 Click **New Exam** to perform a new exam for the patient; Click **Activate Exam** to activate the exam (within 24 hours); Click **Exit** to exit the iStation dialog box.

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Select Transducer and Exam Type

After directly connecting a transducer or connecting a transducer via the Probe Extend Module, press **Exam** to open the following dialog box. Roll the trackball to move the cursor onto an exam type in a transducer column, and click **Set**. The transducer and the exam type are selected.

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Image Adjustment

Imaging adjustments are performed through the following methods:

1. Adjustments through image menus or soft menus

- The image menus are located on the upper left corner of the screen.

  To adjust,

  1) Press **Set** or **Back** key; or
  2) Rotate the multifunction knob.

- The soft menus are located at the bottom of the screen.

  To adjust,

  1) Press the soft menu controls; or
  2) Press **Set** or **Back** key;
  3) Press the soft menu controls 4 to page up / down.

- What items appear in the menu is dependent upon image mode and preset. So what you see in your system may be different from screens and menus exemplified in this manual.
- You can preset the menu items for image menus or soft menus.

To preset menu items displayed in the image menu and soft menu in each image mode,

(1) Press **Setup** key on the control panel to show the **Setup** menu.
(2) Click **Key and Menu Preset** item to open the **Key and Menu Preset** screen.
(3) The **Image Params** page is opened by default.
(4) Select items in **Available Items** box on the left side.
(5) Move the selected items to the **Menu page** for the image menu on the right side.
(6) Click **OK** button.

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Image Adjustment

2. Adjustments in the image parameter area through the multifunction knob

The image parameter area is located in the upper left corner of the screen. The image parameters are displayed while the image menu is not available. Roll the trackball to move the cursor onto a parameter,

1) A frame appears around it;

2) Press **Set** and the cursor disappears;

3) Rotate the multifunction knob to change the parameter;

4) Press **Set** again to confirm.

3. Adjustments through keys / multifunction knob / sliders

Some parameters can be adjusted through keys / multifunction knob / sliders on the control panel, e.g. depth, gain, and TGC, etc.

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Image Adjustment: B

Parameter	Function Description
Depth	Increases or decreases B mode image depth.
TGC	Manually adjust time gain compensation.
Gain	Rotate the [iTouch] knob to increase or decrease the overall B Mode gain.
iTouch	Press to optimize multiple B Mode imaging parameters to produce a uniform image.
Frequency	Changes the current transducer frequency
THI (Tissue Harmonic Imaging)	Enhances penetration in the far field as well as resolution in the near field; improves images of small parts.
A. Power	Selects the acoustic power values
Trapezoid	Turns on / off the Trapezoid feature for linear transducers
L/R (Left/Right) Flip	Flips an image left or right
U/D (Up/Down) Flip	Flips an image up or down
Rotation	Rotates an image in increments of 90°.
FOV (Field of View)	Changes FOV among four selections W, M1, M2, and N.
B Steer	Changes B steer angle; valid only for linear transducers
iBeam	Combines multiple frames with different steer angles into one frame; valid only for linear transducers.
Focus Number	Increases or decreases the number of focal zones.
Focus Position	Changes position of focal zones

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Image Adjustment: B

Parameter	Function Description
Dynamic Range	Increases / expands or decreases / compresses the image gray scale for contrast resolution.
Gray Map	Selects a combination of transform curve, gray rejection and γ correction.
Line Density	Increases or decreases the B Mode line density through selecting High or Low.
IP (Image Processing)	Selects a combination of image parameters
Colorize	Turns on or off the Colorize feature.
Colorize Map	Cycles through available B Mode Colorize maps
iClear	Increases the B Mode image profile for greater boundary detail
Frame Average	Increases or decrease B Mode image averaging for noise reduction.
TSI (Tissue Specific Imaging)	Adjusts the speed of sound against various tissue types
Noise Reject	Increases or decreases the amount of Noise Rejection in the B mode image.
Post Process	Gray map correction tool for transform, reject, and γ correction.

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Image Adjustment: M

Parameter	Function Description
Depth	Increases or decreases image depth.
Gain	Rotate the [iTouch] knob to increase or decrease the overall M Mode gain.
Frequency	Changes the current transducer frequency
Time Mark	Turns on or off time line markers in the M Mode sweep display.
Speed	Increases or decreases the M Mode sweep speed
A. Power	Selects the acoustic power values
Gray Map	Selects a combination of transform curve, gray rejection and γ correction.
Focus Position	Changes position of focal zones
Dynamic Range	Increases / expands or decreases / compresses the image gray scale for contrast resolution.
IP (Image Processing)	Selects a combination of image parameters
Colorize	Turns on or off the Colorize feature.
Colorize Map	Cycles through available M Mode Colorize maps
Display Format	Selects the display format for the B and M images
M Soften	Processes the scan lines of M images to reject noise
Post Process	Gray map correction tool for transform, reject, and γ correction.

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Image Adjustment: Color

Parameter	Function Description
Gain	Rotate the [iTouch] knob to increase or decrease the overall image gain.
Doppler Frequency	Selects the Doppler Frequency value
Scale	Adjusts speed scale and change PRF
Invert	After the **Auto Invert** feature is selected in preset, the color bar will automatically invert when the color flow is steered to a certain angle, thus accommodating operator's habit of distinguishing flow direction.
Baseline	Adjusts the baseline position to change the range of flow speed
A. Power	Selects the acoustic power values
B/C Wide	Sets and constrains the maximum width of the B Mode image to that of the Color RoI.
Dual Live	Turns on or off a side-by-side B Mode and B/Color Mode display.
Flow State	Selects flow state among L, M and H.
Steer	Adjusts RoI of the linear image of color flow with different angles but with immobility of the transducer.
Priority	Sets the flow priority to display.
Packet Size	Adjusts the accuracy of color flow.
Color IP (Image Processing)	Selects a combination of image parameters
Map	Displays effect of color image
Filter	Filters the speed signals of the low speed flow.
Line Density	Selects Line Density between L and H

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Image Adjustment: Color

Parameter	Function Description
Smooth	Rejects noise and smooth the image.
Persistence	Performs temporal smooth of the image.
Contrast	Adjusts contrast of color maps.
Focus Position	Adjusts the color focus position relative to the B focus.
Image Disp	Turns on or off the B Mode image display as live Color remains active.

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Image Adjustment: Power

Parameter	Function Description
Gain	Rotate the [iTouch] knob to increase or decrease the overall image gain.
Doppler Frequency	Selects the Doppler Frequency value
Scale	Adjusts speed scale and change PRF
Invert	After the **Auto Invert** feature is selected in preset, the color bar will automatically invert when the color flow is steered to a certain angle, thus accommodating operator's habit of distinguishing flow direction.
Dynamic Range	Increases / expands or decreases / compresses the image gray scale for contrast resolution.
A. Power	Selects the acoustic power values
B/C Wide	Sets and constrains the maximum width of the B Mode image to that of the Color RoI.
Dual Live	Turns on or off a side-by-side B Mode and B/Color Mode display.
Flow State	Selects flow state among L, M and H.
Steer	Adjusts RoI of the linear image of flow with different angles but with immobility of the transducer.
Priority	Sets the flow priority to display.
Packet Size	Adjusts the accuracy of color flow.
Color IP (Image Processing)	Selects a combination of image parameters
Map	Displays effect of color image
Filter	Filters the speed signals of the low speed flow.
Line Density	Selects Line Density between L and H

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Image Adjustment: Power

Parameter	Function Description
Smooth	Rejects noise and smooth the image
Persistence	Performs temporal smooth of the image.
Contrast	Adjusts contrast of color maps.
Focus Position	Adjusts the color focus position relative to the B focus.
Image Disp	Turns on or off the B Mode image display as live Color remains active.
LVR (Low Velocity Rejection)	Increases or decreases the LVR threshold setting

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Image Adjustment: PW / CW

Note: adjustment items, such as iTouch, SV, steer, Duplex, Triplex and HPRF, are not available in the CW mode.

Parameter	Function Description
Gain	Rotate the [iTouch] knob to increase or decrease the overall image gain.
iTouch	After you press the [iTouch] key on the control panel, the system will automatically set the PW baseline and PRF value to the optimum settings according to the current scanned tissue characteristics.
Scale	Adjusts speed scale and change PRF
Invert	After the **Auto Invert** feature is selected in preset, the spectrum will automatically invert when it is steered to a certain angle, thus accommodating operator's habit of distinguishing image.
PW Steer	Steers the SV of PW flow with immobility of the linear transducer.
Angle	Adjusts SV angle in increment of 1 degree
Quick Angle	Quickly adjusts SV angle in increments of 60°.
Baseline	Accommodates flow with quicker or slower speed to eliminate alias.
SV (Sample Volume)	Adjusts the width of Sample Volume.
Filter	Removes signals of low speed flow.
Doppler Frequency	Selects the Doppler Frequency value
Duplex / Triplex	Enters or exits the Duplex or Triplex mode
Max Speed	Sets the maximum speed of auto trace.
Mean Speed	Sets the mean speed of auto trace.
Colorize	Turns on or off the Colorize feature.

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Image Adjustment: PW / CW

Parameter	Function Description
Colorize Map	Cycles through available Colorize maps
Dynamic Range	Increases / expands or decreases / compresses the image gray scale for contrast resolution.
Volume	Adjusts the Doppler volume
Trace Area	Sets trace area to All, Above, or Below.
Packet Size	Adjusts the accuracy of color flow.
Speed	Adjusts speed.
A. Power	Selects the acoustic power values
Threshold	Increases or decreases Doppler threshold sensitivity.
Trace Smooth	Increases or decreases Doppler noise rejection.
Auto Calc (Auto Calculation)	Turns on or off the auto calculation.
Auto Calc Parameter (Auto Spectrum Calculation)	Calculates PS, ED, RI and PI for Doppler waveform.
Time Mark	Turns on / off Time Mark within the Doppler Spectral display.
HPRF (High Pulse Repetition Frequency)	Turns on / off HPRF feature.
Display Format	Sets Disp Format as L/R, V1:1 (vertical layout with size ratio 1:1), V1:2 (vertical layout with size ratio 1:2) or Full.

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Parameter Adjustments: Others

Image Magnification

- Enter Zoom

In the real time scanning or freeze status, press **Zoom** key to enter the zoom status.

- Zoom Adjustment

Rotating the multifunction knob can increase or decrease the magnification factor (maximum is 10 times). Rotating the multifunction knob to the left can decrease the magnification factor; rotating the multifunction knob to the right can increase the magnification factor. The magnification factor is displayed in the image parameter and menu area. For example, Z5.0 indicates the current magnification factor is 5. In the zoom status, rolling the trackball can move the magnified image.

- Exit Zoom

Press **Zoom** a second time or press **Esc** to exit the zoom status.

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Special Imaging Mode: Smart3D

The quality of images reconstructed in the Smart3D mode is closely related to fetal image quality, angle of a B tangent plane and scanning technique. Refer to Operator's Manual [Basic Volume] for details.

Enter or Exit Smart3D

To enter Smart3D mode,

- Press **Menu** key to display the main menu.
- Navigate the cursor to the **Other** item and click it to display the **Other** menu.
- Click **Smart3D** item in the **Other** menu to enter Smart3D mode.

To exit Smart3D mode,

- If in the 3D capture status, press the Multifunction knob on the control panel to show the cursor and click **Exit** in the menu; or press the **Esc** key.
- If in the review status, press the **Esc** key to exit to the 3D capture status, and press **Esc** again to exit Smart3D mode.

Capture 3D Image

1. Enter the 3D capture mode.
2. Roll the trackball to change position of the Region of Interest (RoI) and press the **Set** key to set the position. Switch the cursor to the status for changing the RoI size and roll the trackball to change the size.
3. Press the **Multifunction** knob to show the cursor.
4. Move the cursor onto **Method** item in the menu and click to select between Linear or Fan.
   - If Linear is selected, you can move the cursor onto **Distance (mm)** item to increase or decrease the distance range for a linear scan.
   - If Fan is selected, you can move the cursor onto **Angle (deg)** item to increase or decrease the angle range for a fan scan.
5. Press the **Update** key or use the soft menu control to click **Start Capture** to start the capture.

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Special Imaging Mode: Smart3D

6. To end image capture,
   - Press the **Update** key a second time; or
   - Press the **Freeze** key; or
   - Click **Stop Capture** in the menu; or
   - Wait until the memory is full and the system automatically ends the capture.
7. To exit 3D mode from the 3D capture mode,
   - Press the **Esc** key; or
   - Click the **Exit** item of the 3D Capture menu; or
   - Press the **B** key on the control panel; or
   - Press the user-defined 3D key on the control panel.

Review 3D Image

In the 3D Review mode, you can

1. Press the **Quad** key to switch between single-window and four-window to display 3D image.
2. Adjust VOI in the three windows.
3. Rotate 3D image.
4. Review Surface Data.
5. Adjust 3D image parameters.
6. Zoom 3D image.
7. Cut 3D image.

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Special Imaging Mode: iScape

You can perform the iScape panoramic imaging feature on B real time images using all linear and convex transducers.

Enter or Exit iScape

To enter iScape mode,

- Click **iScape** item in the [Other] menu.

To exit iScape mode,

- If in the capture status, click **Exit** in the menu; or press **Esc** key.
- If in the review status, press **Esc** key to exit to the capture status, and then press **Esc** key again to exit iScape mode.

Capture Images

1 Move the cursor onto the iScape item in the Other menu and press the **Set** key or directly press the user-defined **iScape panoramic imaging** key to enter the image capture mode.

2 Press the **Update** key or use the soft menu control to click **Start Capture** to start the iScape image capture.

3 Press the **Update** key or **Freeze** key or use the soft menu control to click **Stop Capture** to end the image capture and freeze the screen. The image splicing starts. After the acquisition is complete, the spliced image will be displayed. The iScape review mode is entered.

Review the Extended Image

In the iScape Review mode, you can:

1) Set the extended image parameters.
2) Rotate the extended image image.
3) Magnify the extended image image.
4) Perform measurements, add body marks or comments.

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Cine Review

The Cine Review is used to cycle through a series of frozen or stored images. You can review cine images manually by the trackball or by Auto Cine.

Review Cine Images

1 Press the **Freeze** key to freeze an image, and the system automatically enters the manual cine review.

2 Roll the trackball to change the direction and speed.

3 Use the soft menu control to select **Auto Play** to start the auto cine review and adjust the speed.

4 Roll the trackball to change the auto review to manual review.

5 Press the **Cine** key or **Esc** key to exit the cine review.

Set an Auto Cine Review Series (Cine Clip)

You can set a segment of cine loop which can be reviewed automatically. After the system enters the cine review status, perform the following procedures to set the region.

1 Manually review the images until the frame which you want to set it as start point, and use the soft menu control to select **Set First Frame** in the soft menu to set the start position.

2 Manually review the images until the frame which you want to set it as end point, and use the soft menu control to select **Set End Frame** in the soft menu to set the end position.

3 Use the soft menu control to select **Auto Play** to set the value (except 0), the auto cine status is entered, and adjust the review speed through this control.

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Comments and Body Marks (Pictograms)

Comments and Body Marks (Pictograms) can be added during ultrasound exams.

To add comments,

1 Press the **ABC Comment** key to enter the comment status; the cursor changes to "|".

2 Roll the trackball to locate the position for the comment.

3 Type the characters through the character keys on the control panel; add the comment text through the Comment menu on the left side of the screen.

4 Press the **Arrow** key to add a comment arrow, and rotate the multifunction knob to change its orientation.

5 You can change sizes of comment characters and arrows, and drag, edit or delete the comments.

To add Body Marks,

1 Press the **Body Mark** key to open the Body Mark selection screen and soft menu.

2 Use the soft menu item to select the desired body mark library.

3 Move the cursor onto the desired body mark, and a highlighted frame appears. You can use **Page Down** in the soft menu to turn pages.

4 Press **Set** to add the selected body mark.

5 Roll the trackball to place the probe symbol and rotate the multifunction knob to change the orientation of the probe.

6 Press **Set** to fix the position and orientation of the probe and exit the body mark status.

Note: If no object is selected, pressing the **Clear** key will clear all comments, body marks and general measurements from the screen.

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Save, Review and Analyze Images

To save images,

1 Press the **Save** key to save an onscreen image to the database of the system in the format of FRM.

2 Press the **Freeze** key to freeze an image, use the soft menu item **Save Cine** to save the Cine file to the database of the system in the format of CIN.

3 To save the stored files of the system to another memory or in another format, click the button below the thumbnail area.

To review images,

You can review all the images stored in an exam through the following means:

1 After the images in an exam are stored, their thumbnails will appear on the right side of the screen; you can view the images through the thumbnails; or

2 Press the **Review** key to enter the [Review] screen; or

3 Select an exam of a patient in the [iStation] screen, press **Review** to select the image and enter the [Review] screen.

To analyze images,

The image analysis means that you can view, magnify, perform post processing, measurements, add comments and perform cine (multi-frame) review for a stored image.

1 In the scanning or freeze status, double-click a thumbnail stored in this exam to enter the image analysis status; or

2 In the Review status, select a thumbnail and click the **Open** button or directly double-click the selected thumbnail to open the image.

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Measurements

You can perform measurements on a:

- zoomed image
- cine review image
- real-time image
- frozen image

The measurements consist of general measurements and application measurements.

General Measurements

1 On the image, press the **Caliper** key to enter the general measurement status.

2 Press the **Menu** key to display the menu.

3 Move the cursor onto the measurement tool, and press the **Set** key.

4 Move the cursor onto the desired position and press the **Set** key to fix the measurement caliper, or press the **Back** key to cancel the operation.

Application Measurements

1 On the image, press the **Measure** key to enter the application measurement status.

2 Press the **Menu** key to display the menu.

3 Move the cursor onto the measurement tool and method, and press the **Set** key.

4 Move the cursor onto the desired position and press the **Set** key to fix the measurement caliper, or press the **Back** key to cancel the operation.

5 Refer to the help information displayed below the image during a measurement.

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Measurements

⚠ CAUTION:

1 During a measurement, if you unfreeze the image or change the exam type, the measurement calipers will be cleared and general measurement data will be lost (the application measurement data are stored in the report).

2 During a measurement, if you turn off the system or press the End Exam key, the data not saved will be lost.

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Setup

To change the factory default settings, perform setup operations.

System Configuration

1 Press the **Setup** key on the control panel to enter the Setup menu.

2 Select the **System** item to enter the system configuration dialog box.

3 Set new parameters.

4 Click **OK** to save the new parameters, or click **Cancel** to cancel them, or click **Restore Factory** to restore the factory default settings.

5 Click Return item on the **Setup** menu to allow the new settings to take effective.

6 In addition, you can perform other settings through Exam Preset, Image Preset, Measure Preset, Body Mark Preset, Comment Preset, Key and Menu Preset, Peripheral and DICOM. Refer to the Operator's Manual [Basic Volume] for details.

Manage Settings

1 Select the **Manage Settings** item in the Setup menu to display the Manage Settings dialog box.

2 Select the desired setup data in the **Export** field, and click **Export** to export the selected data.

3 Select the desired setup data in the Import field, and click Import to import the selected data; or click **Restore Factory** to restore the factory default settings for the selected data.

4 To export or import all setup data, click **Export All** or **Import All** at the bottom of the screen; to restore all factory default settings, click **Restore Factory** at the bottom of the screen.

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